Biosecurity Panel: Where Are You Headed?

Dr. Mitch Christensen, Norsvin USA
Pat Albright, Albright Swine Farms
Dr. Jim Kober, Four Star Veterinary Service
Dr. Mike Brumm, Brumm Swine Consultancy, Inc.

Moderated by Brendan Corrigan, Vita Plus

Dr. Mitch Christensen
Norsvin USA
History and Business

• DVM from Iowa State University (2008)
• Over 4 years in private practice (Suidae Health and Orange City Veterinary Clinic)
• Director of Veterinary Services for AgFeed USA
• Currently, Director of Veterinary Services for Norsvin USA

Challenges with a Genetic Nucleus

• People with direct and indirect contact
• Visitors (UPS, semen, maintenance, etc.)
• Dedicated feed mill and feed deliveries
• Sites require low swine density areas
• Regular diagnostic surveillance
• Movement/transfer of animals
Biosecurity strategy

- All deliveries received at off site shed (supplies, semen, people, feed and animals)
- Mill located on site – dedicated trucks for sow farms and boar studs
- Visitors request forms, sign in and downtime
- Bench system in barn/office entryway
- Dedicated trailers to specific pig flows
- Swabbing trailers for PEDv

Biosecurity focus

- Understanding the risks which requires full understanding of the system
- Cross-contamination points
  - Scales
  - Truck washes
  - Delivery vehicles
  - People
Why biosecurity fails

• Complicated
• Takes time to do it right; people in a hurry
• High health results in complacency
• Only measure of success is no outbreak
  – No positive feedback to farm employees
  – Do the prevention methods work?
  – Can corners be cut with no outbreak?

My biosecurity protocol

• Clean vehicles (inside and out; floor mats!!!)
• Shoe covers when stepping out of vehicles
• Different footwear between flows
• Adherence to downtime matrix
• Supplies shipped direct
• Visitor request form signed and approved
• Park away from buildings when visiting
Pat Albright
Albright Swine Farms

History & business

• Grew up on diversified grain & livestock farm where I reside today
  – Exclusively swine for about 30 years
• Managing partners in USDA-inspected multi-species slaughter plant 25 miles from home farm
• Hog roasting business: 8 mobile hog roasters (mostly summer months)
History and Business

- Employees
  - Myself, wife & son, 2 full-time, 2 part-time employees
- Sow herd
  - 200 sows-commercial, show pig & breeding stock
- Contract finishing
  - 6,000 pigs per year
  - Two 1,000-head finisher sites

Biosecurity strategy

- Prevention is primary focus
- Mostly concerned with traffic flow
- Bought only 5 outside animals in last 10 years
- Clean-to-dirty policy
  - Every employee lives it every day
  - Second nature with multiple sites
**Biosecurity strategy**

- Purchase A LOT of disposable boots
- Do A LOT of laundry
- *Largest purchaser of rubber boots in the eastern U.S.!??*

- Focus on REAL risks and avoid getting hung up on minor risks

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**Challenges**

- Several sites
- Different health statuses
- Slaughter plant
- 500 farm visitors each year
- Within sight of 2 major highways and truck stops

**Advantage:** *No other producers within 5 miles of any facility*
**Greatest success**

- Remained PRRS-negative
- Avoided major disease outbreaks
- Eliminated APP without a whole herd depopulation
  - Used temporary offsite finishing

**Biosecurity = profitability**

- Not dealing with PRRS, one step ahead on profitability scale
- Probably helped us avoid PEDv up to this point
Dr. Jim Kober, DVM, MS

Diplomate ABVP-SHM
Four Star Veterinary Service (US), LLC
Swine Veterinary Service of MI, LLC
Alpine Pork, LLC

“Biosecurity versus disease transmission”

Biosecurity: Definition

• Series of rules and management practices implemented to protect the health of the pigs and to avoid the entry of new infectious agents to the herd
• Each practice and procedure designed to reduce the risk of the spread of infectious agents from pig to pig and pig to human
• PADRAP
External vs. Internal biosecurity

- **External:** Tend to be things that you have less control of
  - Proximity of other hog farms
  - Proximity of major roads that pigs travel on
  - Source of your pigs
  - Outside trucking
  - Feed trucks
  - Semen: change in health of the source
  - Weather: cool, wet, breezy = ideal spread of infectious agents across distance
    - PRRSv and Mycoplasma pneumonia: proven up to 6 miles
  - Weather: snow and ice: entry way, wheel wells, ice balls that fall off trucks

- **Internal:** Things that are more easily controlled
  - Internal trucking with clean trucking
  - Contractors
  - Supplies: fumigate?
  - Isolation and testing of incoming stock
  - Vaccination program
  - Rodents, birds
  - People flow
    - Shower (discuss)
    - Clothing/boots
    - Danish entry
Biosecurity questions

- What are the common vehicles for disease?
- Where do pigs pick up infectious agents?
  - Dirty facilities 1-2%
  - Dirty trucks 5%
  - People 5%
  - Other pigs: Dam, roommates, barn mates, neighbors 90%
Biosecurity failures

• **Biggest reason: Not following the protocols**
  – Dirty boots
  – Coming in the back door
  – Proper testing not done from isolation

Aerosol transmission

• **What can I do to control aerosol transmission of disease?**
• Build where there are no other pigs
• Filter barns
• Don’t bring pigs into area from other areas or that are of unknown health status
Vaccines

- *How do vaccines fit into biosecurity protocols?*
- I consider vaccines an internal biosecurity program
- Give to prevent or reduce the spread to other animals as well as to prevent clinical signs of disease
My biosecurity program

- Shower
- Change clothes, wash between farms
- Observe downtimes between farms
- Do not share equipment between farms
- Wash truck inside and outside
- Disinfect truck
- Shoebee’s between truck and barn; take off before getting back into truck to prevent bringing agents into truck
- Lysol wipes

My focus

- My focus with customers
  - “Everything is contaminated until proven otherwise.” Even other people.
  - Agents can ride on the bottoms of shoes, dirty clothes, birds, rodents, equipment
  - Create distinct and obvious clean-dirty lines and adhere to them without fail
Success stories

- Michigan PRRS: Typically mild strains with few (if any) clinical signs
  - Why? No pigs coming into the state from elsewhere
- PRRS has stayed out of isolated herds
- Hotel nursery, but with loadout door by every room instead of running down hallway
  - Stopped PRV spread

Failures

- Mycoplasma entered a clean system by a dirty electrician going in back door
- PED has escaped normal biosecurity programs
Five PEDv sanitation mistakes

1) Don’t count on the product (disinfectant) to do all the work. The process needs to work. The facilities must be “cleaned perfectly”. Pork producers usually do not use detergent or soap to wash. Wash/rinse the virus into the pit. Hot water is the best.

2) Make the use and care of boots, gloves, service trucks part of the farm culture. Proper washing, using disinfectant wipes, clean boot baths, tire and wheel disinfectants.

3) Shortcuts, gimmicks, and rushing are no substitute for perfect cleaning.

4) Don’t assume you can disinfect poop. Most disinfectants do not work in the presence of organic matter, despite what a label may say.

5) All surfaces must be DRY before disinfecting. Pools of standing water accumulate pooling of organic matter and dilute the disinfectants. Many farms are double disinfecting because they have longer down time. Some even heating the rooms?
Dr. Mike Brumm
Brumm Swine Consultancy, Inc.

“What about biosecurity?”

It’s Not Biosecurity If It Doesn’t Inconvenience You

Terri Specht, DVM
Chickasaw, Ohio
Assume the local world is contaminated with XYZ virus/bacteria

- Common pork farm employee collection points
  - Convenience stores (Casey’s, Kwik-Trip, etc.)
  - Coop Elevator counters
  - Coffee shops – not a big concern – pork producers work too hard to have time to sit around and BS!

Proven methods to reduce disease transmission

- Dedicated boots and coveralls at the site/facility
- Wash hands (or wear gloves)!
- Wash, disinfect and dry livestock trailers
- Effective rodent/bird control
Rodent control begins with snow melt

What have you done to keep out disease?

Establish “CLEAN” and “DIRTY” points
NO street shoes in CLEAN areas!
NO street shoes in hog barns!

What about load outs?
What about load outs?

What about filtration?

- Demonstrated to reduce the risk of PRRS breaks when done right
- Only works when all other biosecurity protocols are in place and followed
What about EPI Air and PRRS?

How do you bring things into a site?

- Double bagging
- Fumigation/disinfection room
- UV Boxes: UV-C bulb (253.7 nm) for >10 min
What about?

- Feed trucks
- Propane trucks
- Commercial manure haulers

- Can you establish traffic patterns so no daily crossing of paths occurs?

What about visitors?

- Disposable boots at vehicle so anything on vehicle floor mat isn’t carried onsite
- Park at a specified location so vehicle doesn’t drop “snowball from Hell” where it will spread to site
- You furnish boots and coveralls or require visitor to furnish disposables at door to facility
- What about visitor log? Now a part of Hormel’s SWAP
Break time

• Return to this room for panel discussion Q&A
  – Following panel: “Industry Issues and Outlook” discussion
• 3:30 p.m. Concurrent Session (2-hour session)
  – “Bananas and Coconuts” with Eliz Greene, Day to day stresses of life
• 5:30 p.m. Social
• 6:30 p.m. Dinner

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